

PRELIMINARY AMENDMENT
U.S. Appln. No.: NOT YET ASSIGNED
ATTORNEY DOCKET NO. Q76330

apply a non-magnetic coating liquid obtained by dispersing non-magnetic particles in a solvent on the flexible support to form a non-magnetic lower layer and apply, before the non-magnetic lower layer is dried, a magnetic coating liquid obtained by dispersing magnetic particles in a solvent on the non-magnetic lower layer to form a magnetic upper layer, the method comprising the steps of:

evaluating quality of the coating condition in accordance with shearing energy E for unit volume of the magnetic upper layer obtained by

$$E = \frac{\mu_2 \cdot L \cdot V_c^3}{4 \cdot t_2^2 \cdot V^2}$$
$$V_c = \frac{V}{\sqrt{(1 + \alpha \cdot t_1 / t_2)}}, \text{ and}$$
$$\alpha = \mu_2 / \mu_1$$

where μ_1 is viscosity (Pa·sec) of the non-magnetic coating liquid at shearing velocity of 10^5 sec^{-1} , μ_2 is viscosity (Pa·sec) of the magnetic coating liquid at shearing velocity of 10^5 sec^{-1} , L is length (m) of a flexible support opposite face at downstream side of the slit discharging the magnetic coating liquid at the end of the coating head, V is running velocity (m/sec) of the flexible support, t_1 is wet-coating thickness (m) of the non-magnetic lower layer, and t_2 is wet-coating thickness (m) of the magnetic upper layer; and

deciding the coating condition in accordance with a result of the evaluation step.